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ABSTRACT

In the past 20 years, linguistics has gained a prominent position in speech and language pathology in Britain, evolving into a new field, clinical linguistics. It includes three related areas of activity: training of speech pathologists/therapists; professional practice; and research. Linguistics and speech/language pathology have developed as parallel but separate disciplines, with the relationship not acknowledged until recently. Most therapists training in the 1960s and practicing into the 1970s had little exposure to linguistics. The penetration of linguistics into speech/language pathology education and later, clinical practice began in earnest only in the early 1970s. The impetus for this development can be attributed to a 1972 report on and recommendations for speech therapy services. Interest in linguistics for professional purposes began with pronunciation and proceeded to grammar, language functions, communication, discourse, and then pragmatics. Major areas of research in clinical linguistics include grammatical assessment, discourse, phonological therapy, and applications of information technology. Clinical linguistics should aim to fill the needs of clinicians and researchers, be theoretically eclectic, produce assessment procedures that give insight into the nature of speech/language disorders, and suggest therapeutic procedures. A 23-item bibliography is included. (MSE)

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CLINICAL LINGUISTICS - RETROSPECT AND PROSPECT

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The 20-year lifespan of BAAL coincides with the creation of a new discipline within applied linguistics - clinical linguistics.

This is not to say that in 1967 the potential applications of linguistics to the investigation of communication disorders had not been appreciated. Clearly they had and by such well-known applied linguists as John Trim and Pit Corder. But this fact was not generally recognized in the circles where it needed to be practised - i.e. speech therapy education, training and service departments.

In the past 20 years linguistics has gradually come to hold a prominent position in Speech and Language Pathology in Britain. It is noteworthy that this is not the case elsewhere in the English-speaking world - most especially in the States, where linguistics is still very much a minority interest in education, research and practice in the field of Speech and Language Pathology. This difference is most graphically demonstrated by the fact that it was British applied linguists and British publications that first gave currency to the term clinical linguistics (and indeed to my own sub-specialism of clinical phonology) and it is in Britain that the new journal of *Clinical Linguistics & Phonetics* have been launched.

In the retrospective section of this paper I shall therefore be tracing the emergence and recognition of this new field of applied linguistic endeavour. In so doing it will be helpful to discuss the three areas of activity in clinical linguistics separately; that is the education and training of speech pathologists/ therapists; professional practice and research. Of course, this is a false distinction in that education and training prepares for professional practice which in turn can lead into research, which in its turn is fedback into education and post- qualification training, i.e. continuing professional development. However, it is useful to use this distinction to impose some organization upon this review.

Although linguistics has now established itself as an indispensable foundation for the study and practice of speech and language pathology, this was not always the case. Indeed, by comparison with other branches of applied linguistics (language teaching; child language studies; literary stylistics, to name a few), linguistics came late to speech and language pathology. Perhaps the name of the profession was one of the deterrents - in the UK (though not elsewhere in the English-speaking world) it is still speech therapy. Other professionals - including linguists - imagined (and some still do) that we are only concerned with 'speech'. A brief historical excursus would I think be of assistance in understanding the background to the current British scene and why this traditional 'myth' took so long to dispel. One of the origins of British speech therapy in the

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1920s and 1930s was phonetics; (I emphasize one - there were others e.g. neurology; elocution....) In particular one line of development was associated with the British School of Phonetics lead by Professor Daniel Jones at University College London. This association continued after the establishment of the profession and the College of Speech Therapists, in 1947/8, through the training schools. The first training establishments were set up in London and they taught to a course determined by and examined by the College of Speech Therapists. Phonetics was a compulsory, examined subject in this course. And that subject was taught by members of Staff of the Department of Phonetics at University College - a situation which continued in many London training establishments virtually up to the beginning of the 1980s. It is noteworthy that a major degree course leading to a qualification to practice as a speech therapist is now based in this department. When in the 1950s and 1960s training establishments were set up outside London, they too taught to the same course; for the most part. There was one exception in the mid-1960s a course at the University of Newcastle-upon-Tyne - a forerunner of the new and current situation. Therefore, the provincial training establishments had to employ a member of staff - or more usually borrow a lecturer from the local university - to teach phonetics. In addition, the College of Speech Therapists employed examiners from University Departments of Phonetics; these examiners were also responsible for revisions and updating of the phonetics curriculum.

In this way the profession in its formative years preserved its link with its antecedents. But it did not venture much further than it had done originally into the study of phonetics: the main function of which was to provide a knowledge of articulatory phonetics and the normal pronunciation of English and skills in phonetic transcription, the latter to a very high level.

In the early 1960s there were indications of an impending change but it took a full decade before this change was realized. Indeed, the relationship between speech and language pathology and linguistics over the two decades resembles a protracted courtship, with repeated announcements of an engagement, but no date for the proposed marriage. These announcements are in the form of rather isolated exhortations by eminent applied linguists addressing speech pathology audiences and urging them to take an interest in linguistics. For example in 1963, John Trim gave a paper entitled *Linguistics and Speech Pathology* at a conference, the proceedings of which were published in a volume with the optimistic title: *Signs, Signals and Symbols: a presentation of the British approach to speech pathology and therapy.* In his paper Trim endeavoured (most convincingly in my opinion), to 'demonstrate that Linguistics and Speech Pathology have a good deal to contribute to each other'. At the beginning of his paper he suggests:

"The principle features of a linguistic approach to speech disorders would

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> seem to me to be first, exact observation and recording of the patient's speech; secondly, the analysis of the linguistic system which is being operated by the patient, in cases of developmental disorder, or determination of the linguistic levels affected and to what extent in cases of traumatic or degenerative disorder. Thirdly, as exact as possible a localization of malfunction in the patient and the tracing of its ramifications throughout the speech events in which he participates; the assessment, in fact of its linguistic effects".

Thus we have at the very outset a clear statement of the aims of what we now call clinical linguistics. Trim goes on:

> 'The first of these principles is fundamental to all effective work in speech. For this purpose a sound phonetic training is indispensable. Fortunately this fact is well recognized by the College of Speech Therapists..... To illustrate the value of the second and third points to the therapist and also the value of the pathologist's findings for the development of linguistic theory, we may perhaps apply them to a number of speech disorders'.

This he proceeded to do. It is my impression however, that the impact of this paper on both training and practice was minimal. Most therapists trained during the 1960s claim to be totally ignorant of linguistics, at least as far as their knowledge is derived from their initial training course. The few British publications that there are from that time also show little influence of linguistic thought. Journal articles demonstrating the applications of linguistics are rare until 1966, when there was another attempt 'to make a go of it'.

This time the announcement was made by Professor Pit Corder and it was published in the first issue of the new *British Journal of Disorders of Communication* - surely an auspicious beginning. He was able to state without fear of dissent:

> "What is perhaps rather remarkable is that so much GOOD language teaching and speech therapy goes on without the practitioners receiving more formal study of language".

He observed that:

> "Until recently the only rigorous study of language undertaken in the schools of speech therapy was that of phonetics".

In my own experience the same comments held good five years later with regard to the education and training field. And with regard to actual practice, I have regretfully to say that it is my impression that the situation reflected in these comments was true of the majority of clinicians ten years later, i.e. through to the mid-1970s; though by then there was a growing minority of exceptions. With regard to research, there were a few journal articles in the late 1960s but no evidence of any sustained research activities and no major publications on clinical linguistics. The penetration of linguistics into speech and language pa-

thology education and eventually into clinical practice only began in earnest in the early 1970s. The UK research effort has only really begun to gather momentum in the 1980s.

The impetus for this development can be attributed at least in part to the publication of a *Report of a Government Committee of Inquiry into Speech Therapy Services* in 1972. The Committee of Inquiry was chaired by Professor Randolph Quirk, then Professor of the English Language at University College London - back to origins again, but the language factor had at last begun to emerge. The Report of the Committee - known as the 'Quirk Report' - contains such statements as:

> 'We envisage the ultimate development of a profession which accepts "language as the central core of a basic discipline".'
>
> Its recommendations included:
>
> 'More research should be undertaken by Audiologists, Linguists, Neurologists, Psychologists and others in related disciplines into all aspects of normal and impaired human communication.
>
> Speech therapists should be made more aware of and be better equipped to understand and apply the results of such research'.

In 1972 those recommendations were already being realized in that a whole issue of the *British Journal of Disorders of Communication* was devoted to 'the practical applications of linguistics to the greater understanding and treatment of disorders of spoken language'. I quote from the Editorial written by Betty Byers Brown (who contributed one of the very few papers on language in the clinic, by the way, to the AILA Congress in Cambridge in 1969). The first paper in this 1972 issue of *BJDC* is by David Crystal and has the title: 'The Case of Linguistics - a prognosis'. This is a key article in a benchmark publication in the development of a clinical linguistics so I will quote Crystal's opening remarks to give you a flavour of his arguments for the case of linguistics.

> 'It is sometimes possible to find speech therapists and linguists who are willing to speculate about what an ideal world of "therapeutic linguistics" would look like. I have been collating these observations over the past year or so, for it seems to me that only by being agreed about the hoped-for outcome of the encounter between the two fields can we realistically evaluate what progress has been made so far and lay down practicable guidelines for the future. From what I can gather the ideal seems to consists of seven main goals...'

To summarize briefly I will paraphrase Crystal's list:

1. Description of normal development of language
2. Description of normal adult language
3. Description of linguistic characteristics of language disorders
4. Descriptive techniques for use in particular cases

5. Evaluative scales for linguistic aspects of disorders
6. Explanatory principles for linguistic acquisition and breakdown.
7. Introductory textbook in linguistics

Even at that time (1972) there were at least plenty of general texts to satisfy point 7!!

In this list we have a definitive manifesto for clinical linguistics. It is from this point that the active development of an academic and professional interest in the clinical applications of linguistics can be traced, leading ultimately to the recognition of the specialist field of knowledge and practice - clinical linguistics.

The Quirk Report as well as establishing the need for a study of linguistics in the education and training of speech and language pathologists, also recommended that this education and training should take place in institutions where students would follow a degree course; in other words that British speech therapists should become a graduate profession. The process of conversion literally took a decade: the last old Diploma courses were not finally discontinued and converted into degrees until 1982. These speech and language pathology degree courses are split almost equally between universities and other public sector tertiary education colleges, polytechnics and institutes - awarding degrees that are recognized by universities and the Council for National Academic Awards as being equivalent to those awarded in universities, both in content, level and professional training. The College of Speech Therapists inspects and accredits all these institutions - both universities and polytechnics/colleges - as being suitable training establishments and validates each course as awarding a qualification which grants a licence to practice i.e. a certificate of clinical competence. There are seven courses in universities; five in or associated with polytechnics; three in other types of colleges. Geographically, there are three degree courses and one post graduate diploma in London; in England there are also two degree courses in Manchester and one each in Reading, Birmingham, Sheffield, Newcastle, Leeds and Leicester; two in Scotland and one each in Wales and Northern Ireland. In the university sector three of the courses are run by or under the auspicies of a department of linguistics. All the other courses have linguists - or rather should I say clinical linguists - as members of their course teaching teams. That correction is more than one of terminology these days - it represents a significant change from the situation in the early 1970s when linguistics was first being introduced into the curriculum. At that time it was general practice - as it had been with phonetics teaching - to buy in a lecturer on a visiting basis from the local university to teach linguistics; not surprisingly, this was found to have less than successful results. The unfortunate lecturer usually knew next to nothing about speech and language pathology and as a result his unfortunate students ended his course knowing next to nothing about how to apply linguistics

in their professional practice.

I was in fact one of the first phonetician/linguists to be appointed to the teaching team of one of the newer courses in a polytechnic in 1971; at that time I was the exception; now such an appointment is literally the rule.

To give an indication of what linguistic knowledge a qualifying speech and language pathologist would be expected to possess I will outline the kinds of compulsory courses in linguistics - or linguistic science so as to encompass phonetics - all the degrees include as standard in their curricula:

Introduction to General Linguistics

Linguistic theories and their clinical relevance with special reference to grammatical theories.

Phonological theories and their clinical relevance

Semantic theories and their clinical relevance

Discourse analysis and its clinical relevance

Detailed study of and practice in the grammatical analysis of English

Detailed study of and practice in articulatory and acoustic phonetics, including instrumental phonetics

Detailed study and practice in the phonetic and phonological analysis of English

Detailed study of and practice in the phonetic, phonological grammatical, semantic and pragmatic analysis and assessment of language disorders

Detailed study of the linguistic aspects of child language developmen

Psycholinguistics and its clinical relevance (and neuro-linguistics - if you make the distinction)

Sociolinguistics and its clinical relevance.

The amount of time devoted to these topic areas varies considerably from course to course, but one routinely finds up to and sometimes over 100 taught hours per year allocated to the Linguistic Sciences.

In addition, there is considerable emphasis on the importance of clinical linguistics in most of the courses in the core area of speech and language pathology and students are expected to use clinical linguistic techniques as routine in their clinical practice training placements. Many clinical linguistics also contribute to the teaching in this core area, indeed many are dually qualified, having both speech and language pathology and linguistic degrees. In courses where students take specialist options and undertake special studies in addition to the compulsory curriculum, clinical linguistics more often than not features prominently. From this albeit brief outline it will be apparent that linguistics does indeed hold an extremely important and influential place currently in the prepraration of the professional British speech and language pathologist.

The evolution of interest by UK speech and language pathologists in applying linguistics in professional clinical practice itself can be summarized

somewhat alliteratively as follows: first the profession was **pre-occupied with pronunciation** - an era which lasted as I have already described up to the early 1970s. In the next era we were **gripped by grammar**, mainly of the Chomskian and Quirkian/Crystalian varieties in whose grasp most of the 1970s passed. Towards the end of that decade and in the early 1980s some of us became **fascinated with functions**; from which positions it has been an easy transition to the present state which finds us **convinced by communication, devoted to discourse and practising pragmatics**.

The early years of this evolutionary progress are not material to the focus of this review except in so far as they left behind them certain legacies. The good legacies of the pre-occupation with pronunciation are a continuing expectation of a high standard of phonetic knowledge and skill in the profession as a whole from the graduate's entry into clinical practice. This includes the ability to transcribe using the entire International Phonetic Alphabet and additional symbols to represent deviant speech features. Therefore clinical phonological assessment tools are devised on the assumption that their users will possess the ability to make narrow phonetic transcriptions and will have a very detailed knowledge of articulatory phonetics, normal English pronunciation, normal phonetic and phonological development of English-speaking children and abnormal phonetic and phonological characteristics of different types of speech and language disorders. The somewhat less welcome legacies are a public image which still persists in some quarters to this day of **speech** therapists; and a generation gap in the profession between those with no knowledge of linguistics and those with an ever-increasing understanding of the concepts and applications of linguistics.

.....And thus they were - at least until quite recently - in the grip of grammar. As seems to be inevitably the pattern with revolutions, speech and language pathologists were taken by storm and swung violently over to the language side of the speech-language dichotomy during the mid-1970s. One assessment procedure began to dominate, certainly in the practice of therapy for children's language disorders: this is *LARSP - Language Assessment Remediation and Screening Procedure* - devised by Crystal, Fletcher and Garman, first published in 1976. This became the preeminent clinical linguistic tool: used for assessment and defining treatment goals for language therapy - as I said mainly for children, but also, though less widely, for adult clients with acquired aphasia.

LARSP is essentially a developmental profile of the grammatical structures of English. As an assessment procedure it is designed for use with spontaneous language samples which are then analysed grammatically and the occurrence of the different structures are plotted on the chart. From this profile the clinician can assess the client's grammatical abilities and identify which grammati-

cal structures are absent and the order in which they should be introduced in a remediation programme based on the developmental order of emergence. The focus on grammatical structures naturally led to a similar focus on structures in treatment. Language games and indeed drills were designed to provide opportunities to introduce and practice grammatical structures mainly in a rather rigid and structured way. In 1979 detailed descriptions of how this approach to language remediation had been applied successfully in a variety of settings were published in a volume entitled *Working with LARSP*. The settings included two residential schools for language disabled children, group therapy for pre-school language disabled children and language therapy programs in a partially hearing unit. This volume presents a very clear statement of the current state of the applications of clinical linguistics in professional practice at the end of the 1970s: at least in regard to the treatment of child language disorders.

Linguistic approaches to adult language disorders - i.e. acquired aphasia - also became established in the late 1970s - but from a much wider perspective. This development can in part be attributed to the publication of Ruth Lesser's review volume: *Linguistic Investigations of Aphasia*. This book takes an eclectic approach to aphasia from the theoretical linguistic point of view. Perhaps its main function with hindsight was to ensure that the linguistics characteristics of aphasia were at last as a matter of routine clinical practice described accurately in linguistic terms. This in turn led to the development of informal linguistic assessment tools and linguistic approaches to the treatment of people with acquired speech and language disorders.

Given the dominance of grammatical analysis it is not surprising that clinical phonology was virtually completely overshadowed during the 1970s. Until that is towards the end of that decade when in 1979 a national group of what we would now call clinical linguists got together to devise conventions for the phonetic representation of disordered speech. This by the way was no backlash against the grammatical revolution; more part of the natural evolutionary process of building up a set of clinically applicable linguistic and phonetic tools and procedures for the researcher and the clinical practitioner. At the same time and continuing to the present day related work in clinical phonetics was in train. This includes the development of the clinical applications of Laver's Vocal Profile Analysis technique and various instrumental techniques including electrolaryngography and electropalatography (see Code and Ball (1984)).

In the latter half of the 1970s, new approaches to grammatical analysis were filtering through to clinical linguistics, especially via child language research. These approaches involved a functional analysis of utterances and their syntactic structure: the names of Michael Halliday and Gordon Wells are particularly associated with these developments. The functional approach introduced into the clinical field the analysis of the textual and interpersonal functions of utter-

9
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ances in discourse - highlighting whether an utterance is dependent on preceding utterances and examining its affective intent with regard to the person to whom it is addressed. In addition the functional approach described the grammatical structures within an utterance in terms of their semantic relationship to each other. These concepts are particularly appropriate in investigating communication disorders in that they can be related directly to breakdowns in conversational exchanges on the one hand and on the other to the cognitive knowledge that is required to formulate or comprehend linguistic meanings.

While some of the basic ideas of this functional approach were applied by a few clinicians, I think that it would be true to say that in the early 1980s its impact unfortunately remained relatively small. Now, however, these approaches are coming more to the fore as they are perceived to have a close relationship to the current trend towards pragmatic language therapy. In fact an assessment procedure based on a functional analysis was published by David Crystal in 1982. This is known as *PRISM-G: Profile in Semantics* - focussing on grammatico- semantic relationships. There is also *PRISM-L: Profile in Semantics* focussing on lexico-semantic relationships. As with so many assessment procedures, these two profiles are taking several years to become known and used by the practising professionals. We are also promised very soon a new profile of language development based on the work of Gordon Wells: this profile will be functionally based; its pilot version is called the *Bristol Scale of Language Development.*

Undoubtedly the most rapidly developing area of interest is pragmatics and allied with this studies of the discourse characteristics of therapeutic interactions. Consideration of pragmatic factors is penetrating all aspects of clinical work: assessment, diagnosis and treatment. Furthermore, this approach to language disorders is finding expression in clinical speech and language pathology for both child and adult clients. I think that it is important to view the growing interest in therapeutic discourse alongside the current emergence of pragmatics. In order to implement a pragmatic approach to therapy we must have a very highly developed awareness of the characteristics of facilitative discourse. These are developments in the making to which I will turn in the prospective selection of my paper.

What of clinical linguistic research in the past two decades? The first point to bear in mind in this regard is the history of the profession - its training and qualifications. Only very recently have degrees in speech pathology been awarded as the only qualification to practice. This means that the possibility of post-graduate study has also only recently become generally available. Although post-graduate - i.e. taught Masters - courses have been in existence since the early 1970s there were very few available - basically only two in London until the present decade. Therefore very few clinicians embarked upon post-

qualification studies. Higher degrees by research were virtually non- existent until recently. However, rapid changes are afoot as clinicians perceive the significance of their own graduate professional status as equipping them to conduct research on an equal footing with their professional colleagues in other disciplines. Thus research in the academic sense is in its infancy, but this is not to suggest that there has been no research until the present time. Research in the sense of innovations in clinical practice has been regularly reported in the *British Journal of Disorders of Communication* and elsewhere. Up-to-date statements of clinical research have now found new and regular outlets in the journal *Child Language Teaching and Therapy*; and for adult disorders *Aphasiology*; and from this year - a landmark in the development of the subject area - the new journal of *Clinical Linguistics & Phonetics*.

What are the major areas of research that are currently being explored in the UK which have a clinical linguistic orientation? Grammatical assessment procedures are still a focus of concern with the refinement of the *Bristol Scale of Language Development* and the standardization of *LARSP* by Fletcher and Garman.

Various aspects of discourse are being explored by a number of individuals and small teams, focussing in particular on:

1. The interactions both verbal and non-verbal between mothers and their language-handicapped children.
2. The discourse structure and strategies used by therapists interacting with language handicapped children.

There are a number of projects concentrating on aspects of clinical phonology and phonological therapy. These include investigations attempting to define the nature of phonetic and phonological disorder; investigations of the characteristics of phonologically disordered speech; investigations of phonological development in cleft palate children; research into defining and evaluating strategies in phonological therapy. Although on a smaller scale, the same range of research interest exists in clinical linguistics as applied to the field of acquired disorders. In addition there is considerable and growing interest in the applications of Information Technology in the clinical field: including the development of computerised assessment procedures - *LARSP* already has been computerised; a computerised version of my own phonological assessment *PACS* is currently being developed; clinical data bases are being constructed to aid identification of significant diagnostic factors and predictors of positive response to therapy; remedial software packages are also being developed for use with specific client groups.

All in all it is my impression that British Clinical Linguistics has never been in such vigorous health.

And what of its prognosis - to echo Crystal's metaphor of 1972? For the

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foreseeable future, I cannot see any prospect of the importance of the linguistic sciences in clinical speech and language pathology being eroded or down-valued. There is no doubt that it will continue to form a major element in the initial undergraduate training programmes. As a result clinical linguistics as an essential element in clinical practice will become even more firmly established, widely practised and developed to a higher level of clinical relevance. And provided that the current trend towards the building-up of a research base in the discipline is sustained then these developments in training and practice will be supported by an increasing understanding of the linguistic nature of speech and language disorders and the potential contributions of clinical linguistics to their clinical management.

What then are the aims and purposes of clinical linguistics? My own personal view is that a clinically applicable linguistics should aim to satisfy the pourposes of its specific users: i.e. clinicians and clinical researchers, (often one and the same person). In so doing it should not be hidebound by the theoretical models of mainstream linguistics, but if necessary should be theoretically eclectic and thereby potentially innovative. In this way clinical linguistics should aspire to produce clinically applicable assessment procedures that provide insights into the characteristics and inherent nature of disordered speech and language patterns. Detailed and comparable linguistic descriptions of the different types of speech and language disorders are required: this will provide the data base for the identification of linguistic typologies and diagnostic categories based on linguistic descriptions, (which could of course then be related to other speech pathological characteristics). On the basis of these clearly stated descriptions explicit criteria can be formulated for the identifying and selecting of treatment aims. Equally, therapeutic procedures can be motivated and explicitly determined by the linguistic descriptions of the speech and language disorders. On the basis of such explicitly stated principles and rationales for intervention the evaluation of the efficacy of therapy is made more explicit and explicable. Clinical linguistics can thus serve the theoretical needs of speech and language pathology in contributing to explanations of the nature of disordered communication and the professional requirements of speech and language pathologists in helping clients to overcome their communication disorders.

At the same time as serving the needs of professional practitioners clinical linguists are also seeking to develop and clarify the premises and procedures of their own discipline. In this regard it is unfortunate that David Crystal should republish in paperback his benchmark review of *Clinical Linguistics* this year without his being allowed to revise substantively the contents of the original 1981 version. In the last five years there have been emerging some very clear lines of development in clinical linguistics which I think are indicative of significant differences in our appreciation of the relevance and indeed the premises

of clinical linguistics.

The debate has focused on the **explanatory status** of clinical linguistic descriptions of communication disorders. The arguments have been most publicly and explicitly rehearsed in regard to phonetic and phonological disorders, especially through a series of linked papers in the *BJDC* Volume 20, 1985. But they are also shared by clinical linguists who concentrate on grammatical and semantic disorders. I shall spend the rest of this review exploring my own perception of this debate as an indication of the future prospects for the development of clinical linguistics. While this will be a personal view, it is also a reflection of the general concern of the majority of British clinical linguists as represented in the new journal *Clinical Linguistics & Phonetics* and in papers presented at recent international conferences, especially *AFASIC First International Symposium on Specific Speech and Language Disorders in Children* (Reading April 1987) and *IASCL Fourth International Congress for the Study of Child Language* (Lund, Sweden July 1987) where surprisingly the largest single section of free papers was that on Child Language Disorders.

In the early stages of the development of the clinical applications of linguistics, both clinical linguists and clinicians made bold claims about the explanatory powers of linguistic analysis: the linguistic descriptions of communication disorders were taken, at their face-value, as explanations. Because the data of communication disorders were amenable to a certain type of linguistic analysis, it was claimed that the nature of the disorder was characterized by the linguistic description. Thus a person was said to have for example a **phonological disorder** when their pronunciation patterns were systematically different from those of the norms of his language community. These norm-based explanations of disorders typify what Nigel Hewlett (in *BJDC*, Volume 20, 1985) has recently termed 'the data-orientated viewpoint' in contrast to a 'speaker-orientated viewpoint' in which a psycholinguistic explanation of the actual processes involved in the person's production of spoken language is sought. Before I proceed to considering the implications of adopting a speaker-orientated viewpoint however, there are other bases of clinical linguistic explanations that need to be examined.

One of the classical measures of severity of a disorder in speech and language pathology is **intelligibility** - or the relative ease or difficulty representative listeners find in understanding different individuals with disordered speech and language. It is therefore not surprising to find that one range of approaches to the explanation of communication disorders that is currently being developed by some clinical linguists reflects this traditional type of clinical evaluation. These approaches involve the devising of objective techniques of evaluating the functional consequences of disordered speech and language, by measuring for example the amount of homophony resulting from the loss of a

13 BEST COPY AVAILABLE

phonemic contrast (Eeva Leinonen-Davies 1987), or the amount of ambiguity entailed by the failure to signal a grammatical structure. A collection of some of the papers from the BAAL Seminar on Clinical Linguistics held at Leicester last Easter, (Grunwell & James 1988), will represent this line of development and take the debate further into the area of treatment implications. While this type of explanation is like the norm-reference descriptions and assessments in that it is based directly on the **data** of the disorders, the functional evaluation can be justified as being closer to an explanatory account in that it pinpoints the aspects of the disordered use of language that are responsible for the relative difficulties speakers and listeners experience in achieving effective communication.

Another current and well-developed approach employed in applying linguistics in the investigation of the nature of children's language disorders is to attempt to explain the speech and language problems by reference to developmental norms. When a child is found to be performing differently from his peer group in his use and/or comprehension of language, then a linguistic description and a comparison of his language with that of his peer group and of younger children enables the clinician/clinical linguist to identify whether his language development is:

delayed but otherwise normal

uneven, in that there are patterns from a number of different normal stages

deviant, in that there are patterns that are different from any known normal patterns.

The explanatory outcome of such investigations is a face-value statement that the child has a **developmental** language disorder. Once again, however, this explanation is based on the data or the 'product' of the process of language development; it is thus derived from another essentially data-orientated viewpoint. In order to move towards a speaker-orientated approach we need to ask questions about the process of language development itself, and the physiological and psychological processes and mechanisms that underlie progress through that process.

This is the direction in which clinical linguistics is beginning to move. There is growing recognition among clinical linguists that linguistic descriptions are not in themselves self-sufficient but are **contributions** towards clinically relevant explanations. Clinical explanations require an intermeshing of all the factors that impinge upon a person's communication development, performance and maintenance. The same type of linguistic disorder, in terms of the descriptive account of its characteristics, may be accounted for by several different constellations of clinical factors, including physiological, psychological and social dimensions. In diagnosing the nature of a person's disorder and devising appropriate treatment strategies, the clinician needs to take into consideration all of

these factors alongside the linguistic description of the disorder and the functional evaluation of its consequences.

As I have already indicated a clear appreciation of this role of clinical linguistics is now emerging. This I believe can only serve to reinforce its value both in clinical practice and in research. Therefore I look forward to our achieving over the next ten years that intermeshing of Clinical Linguistics and Speech Pathology, that our present chairperson John Trim envisaged in the programme he mapped out for this area of applied linguistics in 1963.

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